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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/761,307	01/22/2004	Richard Edward Dubreuil	DWE/DUBREUIL	3088
32834	7590	08/10/2007	EXAMINER	
D.W. EGGINS			ALI, MOHAMED HATEM	
18 DOWNSVIEW DRIVE				
BARRIE, ON L4M 4P8			ART UNIT	
CANADA			PAPER NUMBER	
			3693	
			MAIL DATE	
			DELIVERY MODE	
			08/10/2007	
			PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/761,307

Applicant(s)

DUBREUIL, RICHARD EDWARD

Examiner

Mohamed H. Ali

Art Unit

3693

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. The following is a **final action** on merits. The amendments received on 07/27/2007 have been entered. **Claims 2-19** are pending. **Claim 1** has been cancelled.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

3. **Claim 18 and 19** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 18, recites "plastic foam in use to resist lateral deformation of said individual members" is indefinite as to what extend is in practical use.

Claim 19 recites the limitation "to form a substantially diamond-shaped enclosure; said diamond-shaped enclosures extending across the length and breadth of said rectangular enclosure, being bounded by a plurality of substantially triangular shaped enclosure". There is insufficient antecedent basis for this limitation in the claim.

In claims 2-19, the recitations, "member" or "individual member" in place of strut render the claims indefinite because it is unclear if applicant is referring to what strut described in original specification, drawings and abstract.

In claims 2-19, the recitations, "The structural panel unit" in place of the structural frame, render the claims indefinite because it is unclear and confused with all descriptions in original specification.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. **Claims 2-5, 7, 10, 11, 14 and 19** as best understood are rejected under 35 U.S.C. 102(b) as being anticipated by **Leung** (US 2002/0046514 A1).

As per claims 2 and 3, Leung discloses said individual members (diagonals 22s of inclined two pairs) are of slender section modulus, prone to individually buckle under longitudinal compressive loading of said individual members said member pairs having their individual outer ends mutually joined (outer ends 26 and 30 joined), each said individual members of said pairs of members being substantially immobilized at location intermediate their respective ends to significantly reduce their respective tendency to deform under load and members of side frame laterally constrain said individual members that are in contacting relation with said frame side-wall members (via vertical members 12).

As per claim 4, Leung discloses that upper and lower end portions of each of said pairs of members are secured to each other, and at least one said intermediate transition portions of each of said pairs of members are secured to each other (see paragraph [0034], and at least one said intermediate transition portion of a pair of said members is fastened in predetermined locations within said framework (by metal plate 30).

As per claim 5, Leung discloses that upper and lower ends of a pair of said individual members are secured to each other, and attached to adjoining portions of said rectangular enclosure (see Fig.13)

As per claim 7, Leung discloses said rectangular enclosure includes face sheets in enclosing relation with said pairs of members, said pairs of members having sheets edge portions thereof secured to adjoining surface portions of said face sheets (see para 0006; via plywood nailed to the stud).

As per claims 10 and 11, Leung discloses said individual member is laterally constrained substantially at its centre (centre 26) by contact with adjoining pairs of said struts at the centre by the contact with an adjoining portion of said frame (510) by fastening means selected from the group consisting of nails, staples and glue, and combination thereof (by metal toothed plate 30).

As per claim 14, Leung discloses said individual member selected from the material group consisting of ply wood-based sheet board and metal (see para 0052).

As per claim 19, Leung discloses a structural panel unit (510, Fig.11) for use in building structures (see abstract; via a wall panel for a building), consisting of an outer

frame forming the walls of a rectangular enclosure (610, Fig 13); reinforcing means comprising a plurality of pairs of individual members (22s) substantially uniformly distributed throughout the rectangular enclosure (610), the ends of said pairs of members (22s) abutting said enclosure walls; each individual member of said pairs of members having a first portion of its length inclined in mutually divergent relation from the other said individual member of said pair; each said member having an intermediate transition portion, and a second portion of its length adjoining said transition portions inclined in mutually convergent relation with the other said individual member (22s), to form a substantially diamond-shaped enclosure (Fig.11); said diamond-shaped enclosures extending across the length (Fig.13) and breadth (Fig.10) of said rectangular enclosure, being bounded by a plurality of substantially triangular-shaped enclosures (corners as triangular); said intermediate transition portions of a plurality of said members being in contacting, back-to-back, mutual supporting relation (Fig.13 via back-to-back supporting relation inherent with craftsman choice and decision).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 3693

7. **Claims 6, 8, and 9** are rejected under 35 U.S.C. 103(a) as being unpatentable over Leung (US 2002/0046514 A1) in view of Kirk (5,210,990).

As per claims 6 and 8, Leung discloses all the elements of the claimed invention, but failed explicitly to disclose said ends of a said pair of said individual members are glued to each other, and to said adjoining surface portions of said face sheets.

However Kirk discloses the concept of having a wood composite C-channel framing lumber (see col. 3, lines 1-50) as member with ends and adjoining surface portion are glued to each other (see col. 3, lines 31-35) and said face sheets.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to modify the member of Leung to include the C-channel framing lumber that are glued to each other as taught by Kirk in order to provide perfect straightness and uniform surface character.

As per claim 9, although Leung discloses a pair of member constrained at their centre, Leung fails to explicitly disclose the member being constrained substantially at their centre by contact with adjoining pairs of member. It would have been obvious to one of ordinary skill in the art at the time the invention was made to the pair of members of Leung to include the plurality of pairs adjoined at their centre since it has been held that the mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

8. **Claims 12-13, 15-17** (amended) are rejected under 35 U.S.C. 103(a) as being unpatentable over Leung (US 2002/0046514 A1) in view of Cable et al (4,235,054).

As per claims 12 and 13, Leung discloses all the elements of the claimed invention, but fails to explicitly disclose a laterally extending tension member securing intermediate transition portions at least some of said individual members in mutually adjoined back-to-back relation and the tension member is consisting of strapping.

However Cable et al discloses the concept of having a laterally extending tension member (55) securing intermediate transition portions of webs (42) in mutually adjoining back-to-back relation (see Fig. 2), and the tension member is an iron bar.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to modify the panel of Leung to include the laterally strapping extending tension member as taught by Cable in order to provide lateral reinforcement of the wall section.

As per claims 15-17, Leung discloses the metal and plastic individual members having a profile cross section with side flanges extending for at least two or four portions of its length substantially planer end and centre portions.

However Cable discloses the concept of having metal studs including a profile section with side flanges (see col. 2, lines 32-40 and Fig. 3-4).

Therefore, it would have been obvious to an ordinary skill in the art at the time of invention was made to modify the members of Leung to include the metal studs with flanges as taught by Cable in order to provide more load-bearing capacity and more rigidity.

9. **Claim 18** is rejected under 35 U.S.C. 103(a) as being unpatentable over Leung (US 2002/0046514 A1) in view of Griffin (US 6,263,628 B1).

As per claim 18, Leung discloses all elements of the invention, but fails explicitly to disclose plastic foam in supporting relation with said member intermediate portions, in use to resist lateral deformation of said individual members when subjected to say compressive loading.

However Griffin discloses a plastic foam in supporting relation with said intermediate portions, in use to resist lateral deformation of said individual members when subjected to said compressive loading (see column 6 and lines 15-25; via foam core 12).

Therefore, it would have been obvious to an ordinary skill in the art at the time of invention was made to modify the wall panel of Leung to include the plastic foam in supporting relation with said member intermediate portions.

Response to Arguments

10. Applicant's arguments filed 06/27/2007 have been fully considered but they are not persuasive.

11. **With respect to claim 19** applicant argues " Leung (publication US 2002/0046514) who shows a structural panel unit wherein a central opening is provided by means of angled bracing members (e.g. Figs 3 & 4), and wherein Figure 1 shows a window opening supported by corner brace members."

The Examiner respectfully disagrees as Fig 1. shows only one of many other Leung's embodiments referred to.

Applicant also argues, "In all of Leung's embodiments, his members are all multiple thickness units. There does not appear to be any recognition or teaching of using continuous reinforcing elements within his structure where the active length of his reinforcing elements is effectively reduced, so as to correspondingly increase the strut stiffness of the reinforcing element against loads that are applied to it". The Examiner respectfully disagrees. As long as design and cross section dimensioning of members (strut) are defined multiple thickness is irrelevant. Leung's embodiment in Fig.13 shows continuous reinforcement as much as design requirement and wood craftsman choice.

Applicant further argues," The Leung structures are intricate and heavy, in contrast to the weight and wood-saving aspects of the present invention". The Examiner respectfully disagrees. Present days scientifically seasoned wood members (strut) are used in different forms compared to plastic, aluminum and metal members (strut).

12. With regard to applicant remark, "The Kirk (US 5,210,990) reference does not address the defects of Leung. Also, the rigid wooden channel of Kirk is clearly incapable of use in the manner of the present invention". The Examiner respectfully disagrees. The most of the wooden frame/structure/member joints are provided with latest scientifically advanced glue (even with metal and glass joints) capable of carrying very heavy load and also fashionable show structures.

13. **With respect to applicant remark**, "Griffin (US 6,263,628) shows the use of panels with a slab foam core^{and} C-stud side members to receive re-bar, the panel having a top recess for the positioning fore-bar and the pouring era cement structure. There appears to be no teaching by Griffin (Col 6 lines 15-25) of the use of the foam core 12 to "resist lateral deformation of said studs", as referred to by the Examiner". The Examiner respectfully disagrees. The foam core is of substantial strength in compression (see col.6, lines 19-21) and capable of resisting any form of deformation to its strength.

Conclusion

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

16.

Timmerman et al (US 2002/0108332 A1) discloses a lateral force resisting system including a rigid structural panel and hoedowns.

Alexander (US 6, 385,937 B1) discloses modularized structure framing.

DiGirolama (US 6,892,504 B1) discloses wall structure with corner connectors.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohamed H. Ali whose telephone number is 571-270-3021. The examiner can normally be reached on 8.00 to 5.30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Kramer can be reached on 571-272-6783. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

Art Unit: 3693

USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Mohamed H Ali
Examiner
Art Unit 3693

MA

 8-6-07
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